ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
BUREAU OF AIR, PERMIT SECTION
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# PROJECT SUMMARY FOR PROPOSED RENEWAL OF ACID RAIN PROGRAM PERMITS FOR GAS/OIL FIRED POWER PLANTS IN ILLINOIS

### **Schedule**

Public Comment Period Begins: 04/14/2005

Public Comment Period Closes: 05/14/2005

**Illinois EPA Contacts** 

Permit Analyst: Kunj Patel

Community Relations Coordinator: Brad Frost

#### **Introduction**:

The Illinois EPA is proposing to renew the Acid Rain permits for natural gas fired power plants in Illinois, as listed in the table below. All these plants except one are new plants built since 1995. The exception is Ameren Energy's Grand Tower Plant, which formerly burned coal, was repowered in 2001 with natural gas. The Plants use combustion turbines to produce power, rather than boilers and separate steam turbines. In additions to natural gas some of these plants also have the capabilities to burn light fuel oil as a back up fuel.

#### Background:

The overall goal of the Acid Rain Program is to achieve significant environmental benefits through reductions in emissions of sulfur dioxide (SO2) and nitrogen oxides (NOx), the primary causes of acid rain. To achieve this goal at the lowest cost to society, the program employs both traditional and innovative, market based approaches for controlling air pollution. In addition, the program encourages energy efficiency and pollution prevention. As a result, the program applies not only to coal-fired power plants but also to power plants that fire natural gas or oil.

Title IV of the Clean Air Act sets as its primary goal the reduction of annual SO2 emissions by 10 million tons below 1980 levels nationally (from 20 million tons per year to 10 million tons per year nationally) by the year 2000, with a permanent national cap of 8.95 million tons per year by the year 2010. In addition, NOx emissions from electric utility plants are to be reduced by 2 million tons per year from 1980 levels of approximately 7 million tons.

To achieve these reductions, the law required a phased tightening of the restrictions placed on fossil fuel-fired power plants. Phase I became effective on January 1, 1995 and affected 110 coal-fired plants nationwide, most of which burned high sulfur coal. Illinois had eight power plants that were affected. USEPA issued Phase I permits working closely with Illinois EPA. Phase II of the Acid Rain Program became effective on January 1, 2000. Seven hundred more power plants burning coal, oil or natural gas are affected by Phase II. Individual states issued Phase II permits with USEPA approval for their affected power plants.

USEPA has overall authority for the Acid Rain Program. It also manage the national system for tracking emissions and compliance purposes.

#### **Acid Rain Permits**:

The federal Acid Rain program applies to fossil-fuel fired electric generating units. Acid Rain permits only address requirements under the Acid Rain program.

For SO2 emissions, Acid Rain permits address the obligation of affected sources to hold SO2 allowances to account for actual emissions of SO2. An allowance is a limited authorization to emit up to one ton of  $SO_2$  during or after a specified calendar year. These permits contain provisions related to  $SO_2$  emissions and requires the owners and operators to hold  $SO_2$  allowances to account for  $SO_2$  emissions from the affected units. Although new plants are not eligible for allowances allocated by USEPA, the owners or operators may obtain  $SO_2$  allowances to cover emissions from other sources under a marketable allowance program. The transfer of allowances to and from a unit account does not necessitate a revision to an Acid Rain permit.

If the units were subject to limits for natural gas or oil under the Acid Rain Program, the Acid Rain permits would also identify those limits on NOx emissions. However, USEPA has not established limits for gas or oil fired units. Owners and operators of affected sources are still require to monitor  $NO_x$  emissions from affected units in accordance with applicable provisions of 40 CFR Part 75. Many of these sources use the alternative procedures for peaking plants, which rely on operational monitoring and periodic testing for  $NO_x$ , rather than continuous emission monitoring.

The Illinois EPA does not have authority to change the conditions of these permits as they reflect provisions of the Acid Rain program. Issuance of these permits are required by Titles IV and V of the Clean Air Act and Section 39.5(17) of the Illinois Environmental Protection Act. Acid Rain permits do not affect sources' responsibility to meet all applicable federal, state, and local requirements.

#### Request for Comments:

Comments are requested on the proposed renewal of these permits. Comments must be postmarked by midnight 05/14/2005. A hearing may be held if a request is made raising a significant issue related to the permit(s). Requests for information, comments, and questions should be directed to Brad Frost, Division of Air Pollution Control, Illinois EPA, P. O. Box 19506, Springfield, Illinois 62794-9506, phone 217-782-2113, TDD phone 217-782-9143.

## Natural Gas-Fired Power Plants in Illinois Subject to Acid Rain Program

Company Name	Oris No.	I.D. Number	Plant Name	Units
Ameren Energy Generating Co. / Ameren Services	55438	031438ABC	Elgin Energy Center	CT Units 1 through 4
	55201	053803AAL	Gibson City	CT Units 1 and 2
	862	077806AAA	Grand Tower	CT Units 1 and 2
	55204	121803AAA	Kinmundy	CT Units 1 and 2
	55202	145842AAA	Pinckneyville	CT Units 1 through 8
Aquila / MEP Investments, LLC – Piatt	55496	147803AAC	Goose Creek Energy Center	CT Units 1 through 6
Aquila / MEP Flora Power	55417	025803AAD	MEP Flora Power	CT Units 1 through 4
Calpine / Zion Energy Center, LLC	55392	097200AAB	Zion Energy Center	CT Units 1, 2, and 3
Cordova Energy Co.	55188	161807AAN	Cordova Energy	CT Units 1 and 2
Constellation Energy / University Park Energy, LLC	55250	197899AAB	University Park Energy	CT Units 1 through 12
CWLP	7425	167822ABG	Interstate	CT Unit 1

Company Name	Oris No.	I.D. Number	Plant Name	Units
DTE Energy Services / Crete Energy Venture, LLC	55253	197030AAO	Crete Energy	CT Units 1 through 4
Duke Energy	55236	103817AAH	Lee Energy Facility	CT Units 1 through 8
Dynegy / Rocky Road Power, LLC.	55109	089425AAC	Rocky Road Power	CT Units 1 through 4
Dynegy / Tilton	7760	183090AAE	Tilton Energy Center	CT Units 1 through 4
Electric Energy, Inc. / Midwest Electric Power, Inc.	7858	127899AAA	MEPI GT Facility	CT Units 1 through 5
Elwood Energy, LLC	55199	197808AAG	Elwood Energy Facility	CT Units 1 through 9
Excelon Generation Company, LLC	55281	031600GKE	Southeast Chicago energy Project	CT Units 5 through 12
Holland Energy, LLC	55334	173807AAG	Holland Energy	CT Units 1 and 2
Lincoln Energy Center	55222	197811AAH	Lincoln Energy Center	Combustion Turbine (CT) Units 1 through 8
MidAmerican Energy Co. / Cordova Energy	55188	161807AAN	Cordova Energy Center	CT Units 1 and 2

Company Name	Oris No.	I.D. Number	Plant Name	Units
NRG / LSP – Kendall Energy, LLC	55131	093808AAD	Kendall County Generation Facility	CT Units 1 through 4
NRG Rockford	55238 & 55461	201030BCG	Rockford Energy Center	CT Units 1, 2, and 3
PPL University Park	55640	197899AAC	University Park Power Project	CT Units 1 through 12
Reliant Energy	55237	173801AAA	Reliant Energy Shelby County	CT Units 1 through 8
	55279	043407AAF	Reliant Energy Aurora	CT Units 1 through 10
Southwestern Electric Co-operative	7842	051808AAK	Freedom Power Station	CT Unit 1
Try Energy / Lincoln Generating Facility	55222	197811AAH	Lincoln Generating Facility	CT Units 1 through 8
Union Electric Company, d/b/a Ameren UE	913	119105AAA	Venice Power Plant	CT Units 2A, 2B, 3, 4, and 5
We Energies	55296	031600GHA	Calumet Energy Team (CET)	CT Units 1 and 2